

METHODS FOR IDENTIFYING GENES REGULATING
DESIRED CELL PHENOTYPES

Abstract of the Disclosure

5 The invention features a method for identifying a gene associated with a
desired phenotype. This method includes the steps of: (a) providing a plurality of
cell cultures that include plant, animal, or fungal cells capable of exhibiting a
desired phenotype; (b) contacting each of at least a subset of said cells with a
stimulus that (i) induces said cells to exhibit the phenotype, or (ii) does not induce
10 said cell cultures to exhibit the phenotype; (c) determining the presence of the
phenotype in the cell cultures of step (b); and (d) identifying a gene having
increased expression in response to stimuli that induce the phenotype but do not
have increased expression in response to stimuli that do not induce the phenotype.